A•smoke\textsuperscript{40} Oil Smoke Filter

The Absolent type A•smoke\textsuperscript{40} Oil smoke filter features one of the most effective systems in the world for cleaning oil mist and oil smoke. The unit requires very little service: it can run for 1–6 years without requiring a filter change. For Absolent customers, this means extremely low life cycle costs. The A•smoke\textsuperscript{40} filtration unit is designed for handling the most demanding applications, for air flows of up to 4000\textit{m}^3/\textit{h}.

\textbf{All Absolent products offer a unique combination of long useful life and high collecting efficiency}

The Absolent filter unit offers a long useful life as well as consistently high collecting efficiency, thanks to its design and generous filter surface measuring either 105.9\textit{m}^2 (standard) or 117.9\textit{m}^2 (special requirements). Already after the second, self-draining Absolent filter, the particle level in the air is in most cases less than 1.0mg/\textit{m}^3. The A•smoke\textsuperscript{40} is equipped with a third filter stage, a so-called HEPA filter, which ensures a consistent collecting efficiency. Thanks to these three filter stages, the air can usually be returned to the premises. This means less loss of energy and more balanced ventilation in the premises.

\begin{itemize}
  \item Sound attenuated centrifugal fan
  \item Filter stage 3
    \begin{itemize}
      \item HEPA filter with 99.97\% collecting efficiency
    \end{itemize}
  \item Filter stage 1 + 2
    \begin{itemize}
      \item Self-draining Absolent filters
    \end{itemize}
  \item Inlet duct \textbar 315 mm
  \item Return oil tank
  \item Return pump for drained liquid
\end{itemize}

\textbf{Operation}

The filtering process occurs in three stages. The first and second stages consist of the self-draining Absolent filters, in which the filter material is adapted and mixed specifically for each application. The third stage consists of a HEPA filter, which has a guaranteed consistent collecting efficiency of at least 99.97\% arresting 0.3\textmu m dia. particles. Thanks to the unique design of the filter, the Absolent A•smoke filter can be operated continuously without unnecessary interruptions for draining. The return oil is collected at the bottom of the filter for recycling.

\textbf{Range of Application}

The Absolent A•smoke\textsuperscript{40} is well suited for use in applications such as:
\begin{itemize}
  \item Heat-treatment
  \item Cold-drawing
  \item Gear cutting
  \item Grinding with straight oil
  \item CNC turning with straight oil
  \item Forging operations and cold pressing
\end{itemize}

\textbf{Design}

The A•smoke\textsuperscript{40} contains an electronic manometer, which shows the filter unit’s time of operation as well as the state of the filter cassettes. The unit has spacious doors for safe and easy service. The pump and control box are built-in and the filter unit is ready to start - just connect it electrically and to the air duct. That’s why we call it a "plug and play unit".
Absolent is one of few companies in this line of business that has specialized in the filtration of air containing wet particles. This has given us the opportunity to develop a filter cassette that offers a long useful life and consistently high separation efficiency.

**Technical Data**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max permissible airflow</td>
<td>4000 m³/h</td>
</tr>
<tr>
<td>Sound level, 1m in front of filter unit¹</td>
<td>74 dB(A)</td>
</tr>
<tr>
<td>Weight (dry filters)</td>
<td>1000 kg</td>
</tr>
<tr>
<td>Available dim. ext. pressure drop</td>
<td>1000 Pa</td>
</tr>
<tr>
<td>Filter area, filter 1 (Absolent filter)²</td>
<td>24 / 36</td>
</tr>
<tr>
<td>Filter area filter 2 (Absolent filter)²</td>
<td>25,5 m²</td>
</tr>
<tr>
<td>Filter area, filter 3 (HEPA filter)</td>
<td>56,4 m²</td>
</tr>
</tbody>
</table>

**Sound level¹, dB(A)**

- 1m: 67 dB(A)
- 2m: 69 dB(A)
- 3m: 74 dB(A)

**Electronic manometer**

- Pressure drop and operation hour meters
- Optical indication of filter alarm (LED).
- Digital output signal for remote supervision.

**Standard equipment**

- Colour: RAL 7035 fine structure SK3
- Other colours on request!
- Electronic manometer for reading the pressure drop across the filter cassettes.
- PLC-controlled return pump for drained liquid (not included in A•smoke⁴₀)
- Fan starter
- Lifting lugs

**Accessories**

- Alarm indication with LED for pump
- Frequency control of the fan
- Constant flow control
- Duct connections for various types of steel or plastic ductwork available on the market
- Silencer, outlet
- Extension legs
- Water trap for various connections of the return oil pipe
- Outlet hood
- Spray system
- Special colour

¹ Sound absorption in premises=200m², Hemispherical sound propagation. For sound calculation concerning a specific room, contact us at Absolent or any of our dealers.

² The area differs for various applications.

Ongoing product development may subject our specifications to alteration without notice.